

species distribution of blood culture in patients with clinical diagnosis of endocarditis. Provide valuable basis for the clinical use of drugs.

METHODS Analysis blood culture test data from 2007-2014, and the medical record retrieval with clinical diagnosis of infective endocarditis in patients.

RESULTS The number of cases of blood culture was 3908, of which 3451 cases were hospitalized patients, of which 292 cases were diagnosed with endocarditis (accounted for 8.46%); the blood culture was positive in 192 cases, accounting for 65.75% of cases of endocarditis; Strains of blood culture in patients with endocarditis were gram positive cocci, accounted for 88.24% (*Streptococcus viridans* 24.51%, 20.59% coagulase negative staphylococcus (SCN), *S. aureus*, and *E. faecalis*, 19.61% and 10.78%, respectively). There have 4206 strains of isolates from blood culture. Arranged according to the isolate rate, the top five bacteria were *E. coli* (22.42%), SCN (16.41%), *K. pneumoniae* (10.27%), *S. aureus* (5.92%), *A. baumannii* (4.54%). The ESBLs positive rates of *E. coli* and *K. pneumoniae* were 16.6% (157/943), and 11.1% (48/432), respectively. Methicillin-resistant strains were MRSA 41.1%, MRSCON 87.25%. No resistant strains were detected to tigecycline, linezolid, teicoplanin, and vancomycin from Gram positive cocci. The rates of HLAR in *E. faecalis* and *E. faecium* were 32.77% and 47.33%, respectively. The rates of *E. faecium* and *E. faecalis* resistant to ampicillin were 90.7% and 5.8%, respectively, to penicillin were 95.1% and 0%, respectively. There have 4 strains of *Enterococcus* which nonsensitive to vancomycin were isolated. And there have 22 strains of Enterobacteriaceae which nonsensitive to carbapenem (CRE22); *A. baumannii* showed resistance to imipenem at the rates of 59.1%, and MDR, XDR strains were 56% and 32.4% respectively; *P. aeruginosa* can choose antibiotics is less than Enterobacteriaceae, but the resistance rate of were lower than 20%, but MDRI 7%, XDRI 16%.

CONCLUSIONS There have high rates of MRSA, HLAR, MDR, XDR strains in blood culture. There had nonresistant to ampicillin, linezolid, teicoplanin were detected in gram positive cocci; The rates of *A. baumannii*, *P. aeruginosa* resistant to imipenem were 59.1%, 5.2%, respectively. There have a small amount of CRE in Enterobacteriaceae. Because strains of drug resistance was serious in blood culture, blood culture where the pointer should be timely submission, especially in patients with infective endocarditis, attention should be paid to monitoring and timely treatment to prevent the occurrence of serious complications.

GW26-e1246

Association Between Urine Albumin Excretion and Cardiac Troponin T Detected With a Highly Sensitive Assay in a Community-Based Population

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OBJECTIVES Urine albumin excretion is an important predictor of adverse cardiovascular events. Minimally elevated levels of serum cardiac troponin T (cTnT), a marker of cardiomyocyte micronecrosis, can be detected with high sensitivity cTnT (hs-cTnT) assays. The purpose of this study was to investigate the relationship between alterations in albuminuria and serum hs-cTnT levels in a community-based population.

METHODS We examined the association between the urine albumin/creatinine ratio (UACR) and hs-cTnT levels in 1354 participants without overt cardiovascular disease in a community-based, cross-sectional study in Beijing, China.

RESULTS With the highly sensitive assay, cTnT levels were detectable in 90.5% of our subjects. The median (interquartile range) concentrations of hs-cTnT were 7 (5-10) pg/mL. UACR level was an independent predictor of hs-cTnT (Standardized $\beta=0.1$, $P<0.001$). Old age, male sex, 2-h postprandial blood glucose, and estimated glomerular filtration rate were all significantly associated with hs-cTnT. After adjustment for several factors, UACR (odds ratio: 1.40; 95% confidence interval: 1.08-1.65; $P=0.002$) was associated with a higher likelihood of elevated hs-cTnT (≥ 14 pg/mL), whereas the relationship between UACR and a higher presence of detectable hs-cTnT (≥ 3 pg/mL) was not significant. In addition, a fully adjusted logistic regression analysis revealed that compared with participants in the lowest UACR quartile, those in the highest quartile had a 2.43-fold (95% CI: 1.25-5.08; $P=0.006$) increased risk of elevated hs-cTnT.

CONCLUSIONS Higher urine albumin excretion is associated with elevated hs-cTnT among persons without clinically evident cardiovascular disease, suggesting that albuminuria contributes to subclinical myocardial damage beyond its effects on the development of vascular endothelial dysfunction.

GW26-e3915

Genetic Polymorphism Analysis of CYP2C19 in the Han nationality with CAD in Beijing

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OBJECTIVES To explore the genetic polymorphisms distribution feature of cytochrome P450 2C19 (CYP2C19) in Han nationality patients with coronary artery disease (CAD) and its correlation with platelet aggregation test (PAGT) in patients receiving clopidogrel after PCI.

METHODS A total of 800 patients without kinship are selected. CYP2C19 genetic polymorphism is analyzed by using polymerase chain reaction-restriction fragment length polymorphism (PCR-RFLP). Their adenosine diphosphate (ADP) induced PAGT was measured by light transmittance aggregometry (LTA) after admission and having taken 300mg clopidogrel 24 hours later. Compared the discharge PAGT of loading dose with admission, if the absolute value is equal to or less than 10% for CR, all patients are divided into clopidogrel resistance CR and non-clopidogrel resistance NCR (the absolute value more than 10%) groups, and the incidence of coronary stent thrombosis are observed.

RESULTS Proportion of CR is 26.9% (215). In the CR group the proportion of patients with genotype $*1/*1$, $*1/*2$, $*1/*3$, $*2/*2$, $*2/*3$ are 35.3% (76 cases), 38.1% (82 cases), 9.3% (20 cases), 13.0% (28 cases) and 4.2% (9 cases) respectively. The clopidogrel response difference between carriers with genotypes and metabolizers are significantly statistical, the analysis indicates that in CR group there are less carrier with genotype $*1/*1$, more carriers with genotype $*2/*3$ and one or two loss-of-function allele (IM or PM metabolizer). In this study, 3.125% (25 patients) are considered to have occurred stent-thrombosis events; definite stent-thrombosis has happened to 1.875% (15 patients), 10 cases in CR group (5 carriers with genotype $*1/*1$, 2 carriers with genotype $*1/*2$, 1 carrier with genotype $*1/*3$, 1 carrier with genotype $*2/*2$, 1 carrier with genotype $*2/*3$); 5 cases in NCR group (3 carriers with genotype $*1/*1$, 2 carriers with genotype $*1/*2$). The analysis indicates that the incidence of stent-thrombosis events after PCI is higher in the CR group, but no correlation between CYP2C19 polymorphism and stent-thrombosis events.

CONCLUSIONS There are no significant difference in the distribution of CYP2C19 polymorphism between Beijing and other areas of China. There are more carriers with one or two loss-of-function genes, and higher incidence of stent thrombosis events after PCI in CR group. But there are no correlation between CYP2C19 polymorphism and stent-thrombosis events.

GW26-e0485

Cortistatin protects against heart injury by inhibiting NLRP3-mediated inflammasome activation during sepsis

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OBJECTIVES To investigate the effect of cortistatin on myocardium injury in rats with sepsis.

METHODS To test these processes, a murine model of cecal ligation and puncture in vivo and LPS-induced cardiac fibroblasts were used in vitro. At 18 hours after CLP or sham-operation, rats were deeply anesthetized with pentobarbital sodium and a catheter filled with heparin saline (500U/mL) was inserted into right carotid artery, to measure MABP and cardiac function. Hearts were removed and placed in cold normal saline (4°C). Myocardial MDA content was measured by use of thiobarbituric acid assay and LDH and CKMB activity were determined by use of ELISA assay kits. Then we used western blot to test p-JAK2 and p-STAT3 protein expression and NLRP3 inflammasome markers.

RESULTS Pretreatment of cortistatin significantly improved MABP and ameliorated characterized of sepsis as shown by attenuating plasma lactic acid content ($P<0.05$). Compared with the sepsis-only group, rats under cortistatin showed alleviated myocardial injury, such as attenuated plasma and myocardial LDH and CKMB activity ($P<0.05$). Furthermore, CST abolished the effects of sepsis on the activation of NLRP3, ASC, caspase-1 and NF- κ B protein expression, and we also found that CST inhibited pro-IL-1 β production and subsequent IL-1 β activation. We found that pretreated with cortistatin strongly decreased the protein levels of p-JAK2 and p-STAT3 in sepsis ($P<0.05$).

CONCLUSIONS This work provided the first evidence of cortistatin as a new immunomodulatory factor with the capacity to deactivate NLRP3 inflammasome activity and to protect against the myocardial injury induced by sepsis, at least by inhibiting JAK2/STAT3 signaling

pathway. This work has important implications for the design of new strategies to control NLRP3-related disease.

GW26-e0768

Ticagrelor Prevents Cardiac Inflammation and Fibrosis of Hypertension Rats

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OBJECTIVES In this study, we aimed to determine the P2Y₁₂ receptor inhibitor ticagrelor could inhibit cardiac inflammation and fibrosis of hypertension rats.

METHODS Male Sprague Dawley rats were made hypertension after partial renal artery constriction (2-kidney, 2-clip method). After 1 week, they were simultaneously treated with ticagrelor (10 mg/kg ig.q24h) or vehicle. At 8 weeks, echocardiographic measurements were taken to observe structure and blood flow in heart of rats; CD41 staining showed that platelets accumulation at heart of rats; Real-time PCR was used to measure inflammatory cell infiltration into the heart being responsible for cardiac fibrosis.

RESULTS At 1, 4, 8 weeks systolic blood pressure (mmHg) were increased in hypertension rats. Ticagrelor or vehicle did not change the systolic blood pressure (mmHg) of hypertension rats. CD41 staining showed that platelets accumulated at heart of vehicle-treatment hypertension rats was more than normal rats. Ticagrelor treatment hypertension rats had significantly decreased accumulation of α -SMA(+) myofibroblasts and cardiac fibrosis, compared to vehicle hypertension rats. Inflammatory cells: Mac-2(+) macrophages and CD45(+)Ly6G(+) neutrophils in heart were also inhibited at ticagrelor treatment hypertension rat, compared to vehicle hypertension rats. Interleukin-1 β and transforming growth factor- β examined by Real-time PCR and immunohistochemical staining was significantly decreased in heart of ticagrelor treatment hypertension rats, compared vehicle hypertension rats in heart.

CONCLUSIONS Our data suggested that ticagrelor ameliorates cardiac inflammation and fibrosis of 2-kidney, 2-clip method hypertension rats.

GW26-e1325

Dynamic changes of Serum myocardial enzymes in 73 infantile cases with rotavirus gastroenteritis

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OBJECTIVES To investigate Dynamic changes of serum myocardial enzymes in children less than three years of age with rotavirus gastroenteritis.

METHODS A total of 73 patients were enrolled in observation group. All had acute gastroenteritis due to rotavirus infection and were treated at Affiliated Hospital of Sun Yat-Sen University between January 2013 and March 2015. All were younger than 3 years of age (39 males and 34 females aged 0.2 to 3 years, median 17 months), and those patients with congenital heart disease, myocarditis, liver and kidney diseases, muscular diseases, toxic encephalopathy and epilepsy must be excluded. All of the patients had watery diarrhea, stool rotavirus antigen were positive. Patients were allocated to two groups according to with or without Symptoms of dehydration (38 patients in dehydration group and 35 patients in non- dehydration group). Blood samples of all patients were collected on day 1 and day 7 for detection of Serum myocardial enzymes, including creatine phosphate kinase (CK), creatine phosphate kinase isoenzyme (CK - MB), aspartic transaminase (AST), and lactate dehydrogenase(LDH). 36 healthy children aged 0.5 to 3 years in the same period were taken as control whose blood samples were collected on day 1. In addition to basic treatment, those patients with abnormal Myocardial enzyme were treated with fructose 1,6-diphosphate and high-dose vitamins C.

RESULTS Serum enzymes levels (CK, CK - MB, AST and LDH) on day1 in observation group were higher than those of control group, and the difference was statistically significant ($P < 0.05$). Both CK and CK-MB increased among them accounted for 38.3% of cases. The percentage of abnormal enzymes (both CK and CK-MB) in dehydration group was significantly higher than that of non- dehydration group (46% VS 31%), and the difference was significant ($P < 0.05$). With the condition of the patients improved, Serum myocardial enzymes levels on day 7 after

treatment was significantly decreased. The difference was statistically significant ($P < 0.05$) compared with the levels on day 1, and was not statistically significant ($P > 0.05$) compared with the control group.

CONCLUSIONS The patients younger than 3 years with rotavirus gastroenteritis were susceptible to develop myocardial damage. Consequently early detection and treatment are recommended.

GW26-e2222

Polymorphisms in the DOCK7 gene and the risks of coronary artery disease and ischemic stroke

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OBJECTIVES Several recent genome-wide association studies in different populations have identified the *DOCK7* genetic variants influencing serum lipid levels, but the results are inconsistent. In addition, it is still unclear whether these loci identified also exert the similar effect on the susceptibility of coronary artery disease (CAD) and ischemic stroke (IS). Therefore, the present study aimed to detect the association of the *DOCK7* single nucleotide polymorphisms (SNPs) and serum lipid levels, the susceptibility of CAD and IS in the Guangxi Han population.

METHODS This study recruited 1,139 unrelated patients (CAD, 584 and IS, 555) and 627 healthy controls from the First Affiliated Hospital, Guangxi Medical University. The diagnosis of CAD was based on typical clinical symptoms, electrocardiographic changes, increased serum markers including creatinine kinase-MB and troponin T, and coronary angiographic findings (coronary stenosis $\geq 50\%$ in at least either one of the three main coronary arteries or their major branches such as diameter ≥ 2 mm). The classification of IS was made according to the TOAST (Trial of Org 10172 in Acute Stroke Treatment) criteria. Genotypes of the *DOCK7* rs10889353 and rs10889335 SNPs were determined by the Snapshot technology platform.

RESULTS Serum total cholesterol (TC) and triglyceride (TG) levels in healthy controls were different among the three genotypes of *DOCK7* rs10889353 and rs10889335 SNPs ($P < 0.05-0.01$), the rs10889353C and rs10889335G allele carriers had higher TC and TG than the C and G allele non-carriers; respectively. The rs10889353C and rs10889335G allele carriers were associated with an increased risk of CAD (rs10889353AC genotype: OR = 1.20, 95%CI = 0.94-1.54, $P = 0.079$; CC genotype: OR = 2.76, 95%CI = 1.49-5.14, $P = 0.001$; rs10889335AG genotype: OR = 1.23, 95%CI = 0.96-1.57, $P = 0.061$; and GG genotype: OR = 2.44, 95%CI = 1.35-4.43, $P = 0.002$). The rs10889353C allele carriers were also associated with an increased risk of IS (AC genotype: OR = 1.12, 95%CI = 0.87-1.44, $P = 0.202$; CC genotype: OR = 2.25, 95%CI = 1.18-4.28, $P = 0.009$). After adjustment for age, gender, body mass index (BMI), smoking, drinking, hypertension, hyperlipidemia and diabetes, the rs10889353 SNP was still associated with an increased risk of CAD and IS in different genetic models ($P < 0.05-0.01$). Stratified analysis showed that the two SNPs may interact with the gender, age, BMI, smoking, drinking, hypertension and hyperlipidemia to affect (increase or decrease) the risks of CAD and IS.

CONCLUSIONS *DOCK7* rs10889353 and rs10889335 SNPs are associated with elevated serum TC and TG levels, and increased risk of CAD in the Guangxi Han population. The rs10889353C and rs10889335 G allele carriers have higher serum TC and TG levels and higher risk of CAD than the rs10889353AA and rs10889335AA homozygotes. *DOCK7* rs10889353 SNP is also associated with the susceptibility of IS, the rs10889353CC homozygote is associated with an increased risk of IS.

GW26-e2337

Clinical significance of serum C-reactive protein and blood homocysteine detection in patients with coronary heart disease

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OBJECTIVES Coronary heart disease (CHD) is one of the most common heart disease, it is because of coronary artery stenosis, insufficient blood supply myocardial dysfunction and (or) caused by organic disease. To discuss the relationship between the serum C-reactive protein(CRP), blood homocysteine (Hcy) levels of coronary heart disease patients and coronary heart disease.